

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	5400	(pc or computer or client or station or work or workstation or kiosk or meter) near5 (postage or franking or mailing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:41
2	BRS	L2	118025	(mailing or frank or mail or post or franking or shipment or shipping or ship or convey or conveying or transport or transported or transporting or transportation) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating or price or pricing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:42
3	BRS	L3	4544	2 near5 (determine or determined or determining or determination or calculate or calculated or calculating or calculation or estimate or estimated or estimating or estimation or predict or predicted or predicting or prediction)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:42
4	BRS	L4	364	3 near5 (pc or computer or client or station or work or workstation or kiosk or meter)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43

	Type	L #	Hits	Search Text	DBs	Time Stamp
5	BRS	L5	224	1 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43
6	BRS	L6	139205	(display or displayed or displaying or crt or screen or indicate or indicated or indicating or indication) near5 (delivery or service or option or postal or carrier or provider)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43
7	BRS	L7	2927	2 near5 (display or displayed or displaying or crt or screen or indicate or indicated or indicating or indication)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:44
8	BRS	L8	19954	(6 or 7) near8 (select or selected or selecting or selection or chose or chosen or choosing or pick or picked or picking)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:46

	Type	L #	Hits	Search Text	DBs	Time Stamp
9	BRS	L9	13295	(authorize or authorized or authorizing or authorization or verify or verified or verifying or verification or authenticate or authenticated or authenticating or authentication) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating or price or pricing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:47
10	BRS	L16	1463	9 near5 (delivery or service or deliverer or postal or carrier or provider or vender or vendor)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:04
11	BRS	L19	29	5 and 8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:08
12	BRS	L20	6	16 and 19	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:11
13	BRS	L21	33	5 and 16	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:11

	Type	L #	Hits	Search Text	DBs	Time Stamp
14	BRS	L22	145	8 and 16	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:12
15	BRS	L23	195	19 or 20 or 21 or 22 <i>Interference search</i>	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:12

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	4	(@pd<="19710101" not @pd<="19470101") and (705/402 or 705/407 or 705/408).ccls. <i>Scanne Ti, all</i>	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/08 12:12

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	5400	(pc or computer or client or station or work or workstation or kiosk or meter) near5 (postage or franking or mailing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:41
2	BRS	L2	118025	(mailing or frank or mail or post or franking or shipment or shipping or ship or convey or conveying or transport or transported or transporting or transportation) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating or price or pricing)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:42
3	BRS	L3	4544	2 near5 (determine or determined or determining or determination or calculate or calculated or calculating or calculation or estimate or estimated or estimating or estimation or predict or predicted or predicting or prediction)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:42
4	BRS	L4	364	3 near5 (pc or computer or client or station or work or workstation or kiosk or meter)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43

	Type	L #	Hits	Search Text	DBs	Time Stamp
5	BRS	L5	224	1 and 4	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43
6	BRS	L6	139205	(display or displayed or displaying or crt or screen or indicate or indicated or indicating or indication) near5 (delivery or service or option or postal or carrier or provider)	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:43
7	BRS	L7	2927	2 near5 (display or displayed or displaying or crt or screen or indicate or indicated or indicating or indication)	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:44
8	BRS	L8	19954	(6 or 7) near8 (select or selected or selecting or selection or chose or chosen or choosing or pick or picked or picking)	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:46

	Type	L #	Hits	Search Text	DBs	Time Stamp
9	BRS	L9	13295	(authorize or authorized or authorizing or authorization or verify or verified or verifying or verification or authenticate or authenticated or authenticating or authentication) near5 (fee or feeing or postage or price or pricing or cost or costing or charge or charging or rate or rating or price or pricing)	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 14:47
10	BRS	L16	1463	9 near5 (delivery or service or deliverer or postal or carrier or provider or vender or vendor)	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:04
11	BRS	L19	29	5 and 8	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:08
12	BRS	L20	6	16 and 19	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:11
13	BRS	L21	33	5 and 16	US - PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:11

	Type	L #	Hits	Search Text	DBs	Time Stamp
14	BRS	L22	145	8 and 16	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:12
15	BRS	L23	195	19 or 20 or 21 or 22 <i>Scanned Ti, Ab kwic all</i>	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/09/06 15:12

	Document ID	Issue Date	Inventor	Current OR	Current XRef	Pages
1	US 4802218 A	19890131	Wright; Christopher B. et al.	705/60	235/375; 235/380; 235/487; 235/492; 380/51; 705/61; 705/67; 705/68; 713/166	27
2	US 4940887 A	19900710	Sheng-Jung; Wu	235/381	177/25.15; 235/375; 235/376; 235/377; 235/383; 235/432; 700/224; 705/406; 705/407; 705/408	15
3	US 5117364 A	19920526	Barns-Slavin; Ileana D. et al.	705/402	177/25.15; 705/407	12
4	US 5606507 A	19970225	Kara; Salim G.	705/408	235/381; 705/402	19
5	US 5819240 A	19981006	Kara; Salim G.	705/408	700/235; 705/410	37
6	US 6005945 A	19991221	Whitehouse; Harry T.	380/51		25
7	US 6035291 A	20000307	Thiel; Wolfgang	705/408	177/25.15	51

L23 results

	Document ID	Issue Date	Inventor	Current OR	Current XRef	Pages
8	US 6153835 A	20001128	Schwartz; Robert G. et al.	177/25.13	705/404; 705/407	31
9	US 6175825 B1	20010116	Fruechtel; Ingrid	705/404	705/30; 705/410	15
10	US 6233568 B1	20010515	Kara; Salim G.	705/410	705/401	44
11	US 6308165 B1	20011023	Gilham; Dennis Thomas	705/62		8
12	US 6321214 B1	20011120	Thiel; Wolfgang	705/408		47
13	US 20020023057 A1	20020221	Goodwin, Johnathan David et al.	705/50		97
14	US 20020046183 A1	20020418	Gilham, Dennis Thomas	705/60		8
15	US 20050071297 A1	20050331	Kara, Salim G.	705/410	705/411	36

12 results

US-PAT-NO:5117364

DOCUMENT-IDENTIFIER: US 5117364 A

TITLE: Carrier management method and system having auto-rate shopping

DATE-ISSUED: May 26, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barns-Slavin; Ileana D.	Wilton	CT	06897	N/A
Dukes; Alonzo T.	Bridgeport	CT	06606	N/A
Njo; Angela	Bridgeport	CT	06606	N/A
Taylor; David J.	Norwalk	CT	06855	N/A

US-CL-CURRENT: 705/402, 177/25.15 , 705/407

ABSTRACT: A carrier management system includes a scale for weighing parcels to be shipped, a computer connected to receive data from the scale related to the weight of a parcel thereon, and first input keys enabling the input of information. The computer has a data base for storing shipping charge data for a plurality of carriers and/or shipping classes, based upon the weight of a parcel of the scale. The computer is responsive to the operation of the first keys for determining shipping charges for predetermined carriers and/or shipping classes represented by data in the data base. The input includes auto-rate selection key, and the computer is responsive to operation of the auto-rate selection key for determining shipping charges of the least costly carrier and/or shipping class of a predetermined subgroup of carriers and/or shipping classes represented by data in the data base. In one operating mode, the computer may determined the next least costly shipping charges. The computer is responsive to the operation of determined keys of the input means for controlling the carriers and/or shipping classes within the subgroup, as well as for controlling the operating mode thereof.

6 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

----- KWIC -----

Abstract Text - ABTX (1): A carrier management system includes a scale for weighing parcels to be shipped, a computer connected to receive data from the scale related to the weight of a parcel thereon, and first input keys enabling the input of information. The computer has a data base for storing shipping charge data for a plurality of carriers and/or shipping classes, based upon the weight of a parcel of the scale. The computer is responsive to the operation of the first keys for determining shipping charges for predetermined carriers and/or shipping classes represented by data in the data base. The input includes auto-rate selection key, and the computer is responsive to operation of the auto-rate selection key for determining shipping charges of the least costly carrier and/or shipping class of a predetermined subgroup of carriers and/or shipping classes represented by data in the data base. In one operating mode, the computer may determined the next least costly shipping charges. The computer is responsive to the operation of determined keys of the input means for controlling the carriers and/or

shipping classes within the subgroup, as well as for controlling the operating mode thereof.

Brief Summary Text - BSTX (8): In accordance with the invention, a carrier management system includes a scale for weighing parcels to be shipped, a computer connected to receive data from the scale related to the weight of a parcel thereon, and input means enabling an operator to input information to the computer. The input means includes a plurality of keys including separate first input selection keys. The computer has a data base for storing shipping charge data for a plurality of carriers and/or shipping classes, based upon the weight of a parcel of the scale. The computer comprises means responsive to the operation of the first keys for determining shipping charges for predetermined carriers and/or shipping classes represented by data in the data base. In accordance with the invention, the input means comprises an auto-rate selection key, and the computer comprises means responsive to operation of the auto-rate selection key for determining shipping charges of the least costly carrier and/or shipping class of a predetermined subgroup of carriers and/or shipping classes represented by data in the data base.

Brief Summary Text - BSTX (9): In a further feature of the invention, the computer comprises means responsive to the depression of a determined key on the input means for determining the shipping charges for the next least costly carrier and/or shipping class of the subgroup.

Brief Summary Text - BSTX (10): In a further feature of the invention, the carrier management system further comprises a display connected to the computer, and the computer comprises means responsive to operation of the auto-rate selection key for displaying the weight of a parcel on the scale, and the shipping charges for the parcel for the least costly carrier and/or shipping class, on the display.

Detailed Description Text - DETX (4): The system further includes one or more printers 24, one of which may be the printer 11 illustrated in FIG. 1, and another of which may be internal to the system, if desired. The system may have working RAM 26, and further NVM 27, and may be adapted to be connected to a mailing machine or USPS meter 28, a conveyor 29, and/or a host computer interface 30.

Detailed Description Text - DETX (19): In use of the above described system, i.e. not considering the specific features of the present invention, a parcel is placed upon the platform 13, and, in response thereto, a message is displayed prompting the user to enter an identification number of the parcel. When an identification number has been entered, the user may be optionally prompted to enter user definable, customer related information associated with the parcel to be shipped, as well as remarks concerning the parcel. Next the user is prompted to enter a carrier/class selection. In response thereto, the user depresses one of the keys of row 101 of keyboard section 100, if the parcel is to be shipped by USPS, or one of the keys of row 102 of keyboard section 100 if the parcel is to be shipped by UPS. The separate keys of these two rows correspond to different classes of service. Some of these keys may correspond to more than one class of service.

in which case a menu is displayed and scrolled on the display to permit the operator to select the desired class of service. For example, the first key in row 101 may enable the user to select either first class or priority USPS mail service, and the second key in this row may enable the user to select either third or fourth class USPS mail service. Following this selection, the user is prompted to enter the Zip code, in response to which the user enters a 3 digit Zip code (i.e. the most significant 3 digits of the Zip code). The system now displays the weight of the parcel at the section 15a of the display, the 3 digit Zip code and Zone at the section 15b of the display, and the shipping charges at the section 15b of the display.

Detailed Description Text - DETX (26): AUTO-RATE SHOPPING in accordance with the invention may be effected in either of two modes, i.e. an AUTO mode and a SCROLL mode. As will be discussed, the system may be programmed by the user to operate in either one of these modes. In the AUTO mode, the system determines the least expensive carrier/class for the given parcel and displays the identification of this carrier/class, and causes the system to consider only that carrier/class in subsequent determinations for the given transaction (i.e. for shipping the parcel currently on the platform). In the SCROLL mode, the system initially determines and displays the identification of the least expensive carrier/class. If the user is not satisfied with this selection, the enter keypad 301 is depressed and the system then displays the next least expensive carrier/class. The remainder of the chosen carrier/class list may be scrolled in the same manner, until the user is satisfied with the selection. Any carrier/class in the list that has a invalid zip code is removed from the list. At such time, the user proceeds to select any desired special services, and to terminate the transaction by depressing the PRINT key 302.

Claims Text - CLTX (1): 1. In a carrier management system including a scale for weighing parcels to be shipped, a computer connected to receive data from said scale related to the weight of a parcel thereon, and input means enabling an operator to input information to said computer, said input means including a plurality of keys including separate first input selection keys, the computer having a data base for storing shipping charge data for a plurality of shipping classes, based upon the weight of a parcel of said scale, said computer comprising means responsive to the operation of said first keys for determining shipping charges for predetermined shipping classes represented by data in said data base, the improvement wherein said input means further comprises an auto-rate selection key, and said computer comprises means responsive to operation of said auto-rate selection key for determining shipping charges of the least costly shipping class of a predetermined subgroup of shipping classes represented by data in said data base, and wherein said system further comprises means responsive to the depression of a determined key on said input means for determining the shipping charges for the next least costly shipping class of said subgroup.

Claims Text - CLTX (2): 2. The carrier management system of claim 1 further comprising a display connected to said computer, said computer comprising means responsive to operation of said auto-rate selection key for displaying the weight of a

parcel on said scale, and the shipping charges for said parcel for said least costly shipping class, on said display.

Claims Text - CLTX (5): 5. The carrier management system of claim 1 wherein said system has a first mode wherein said computer comprises means responsive to the operation of said auto-rate selection key for permitting the determination only of the shipping charges of the least costly of said shipping classes of said subgroup, and a scroll mode wherein said computer comprises means responsive to the operation of said auto-rate selection key followed by operation of a further key for determining the next least costly shipping charge of said shipping classes of said subgroup.

US-PAT-NO:4802218

DOCUMENT-IDENTIFIER: US 4802218 A

See image for Certificate of Correction

TITLE: Automated transaction system

DATE-ISSUED: January 31, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE
Wright; Christopher B.	San Francisco	CA	N/A
Bristow; Stephen	Los Altos Hills	CA	N/A

US-CL-CURRENT: 705/60, 235/375, 235/380, 235/487, 235/492, 380/51, 705/61, 705/67, 705/68, 713/166

ABSTRACT: An automated transaction system employs a card maintaining an account balance and a terminal for dispensing an article of value and debiting the card's balance. The card has a secure, resident microprocessor which executes an interactive handshake recognition procedure with a secure, resident microprocessor in the value dispensing section of the terminal prior to actuating a requested transaction. In the preferred form, the handshake procedure operates by an exchange of encrypted words between the card microprocessor and the dispenser microprocessor using corresponding encryption algorithms and a secret key number, and the card microprocessor providing a command signal to the dispenser microprocessor only upon successful completion of the procedure.

The automated transaction system is particularly suitable as a postage metering terminal having a postmark printer as the value dispensing section. Postage is printed only if the handshake procedure is executed between the card microprocessor and the printer microprocessor. The postal terminal also receives a rate card for computing postage automatically, and prints an invisible authentication mark along with the postmark to discourage counterfeiting. The terminal can be configured to print standard form waybills for postal and private carrier services by loading waybill information from an IC ROM services card. The balance in the user card is refilled in a refilling terminal using a master card which maintains a master account balance and a supervisor card which is in the custody of an authorized person.

42 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

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Brief Summary Text - BSTX (20): The postage metering terminals according to the invention are also provided with means for allowing a post office or carrier to authenticate the postage marks or waybills that are printed. In one embodiment, the terminal printer prints within or under the postmark a coded number or sequence of marks corresponding to an element of the postmark, such as the amount of postage, the terminal identification number, and/or the sender's zip code. The marks may be disguised or made invisible by printing with a magnetically or optically readable ink to deter tampering or unauthorized simulation. They may then be machine-read by the post

office or private carrier company to determine whether the printed postmark was printed by an authorized printer, and at the same time provide an audit trail to the sender.

Detailed Description Text - DETX (41): The program operation of the postal waybill terminal 20' is illustrated in block diagram form in FIG. 8, and a sample waybill form is shown in FIG. 9. Upon insertion of the user card 10 in slot 11, the user confirmation procedures previously described are carried out between the terminal MPU 30 and card MPU 60. If an unauthorized card or user is detected, the card is locked and the terminal operations are terminated. With a valid user card, the terminal program then checks if a rate card 90 and/or a special services card 100 is inserted and whether each is valid. Validity can be determined by the issue number of the card or by an indicated expiration date. If there is no rate card or special services card, the terminal MPU requests the user to input the desired postage and goes to the print key decision block 121. The terminal is then used to print a postmark or postage label as described previously. If a valid services card is present, the terminal program displays a menu of mailing or carrier services from the services card and requests the user to select a service.

Detailed Description Text - DETX (42): The terminal MPU 30 loads the selected service program from the service card and executes it, as indicated at block 118. For typical carrier services, the service program displays a standard carrier waybill form used by the selected carrier. For example, if the U.S. Postal Service Express Mail service is selected, the form shown in FIG. 9 is displayed. The form includes a carrier identification field 130, service class field 131, and pointers on the display for inserting information in fields 132-137 and 140-146. A waybill identification number in bar code 138 and characters 139 is selected for the transaction and displayed. Preferably, the services card has a list of reserved waybill numbers which are sequentially incremented for each completed transaction. If a transaction is not completed, the number is saved for the next transaction. As described previously, the bar code can include a section which is an encryption of one element of the waybill information, so that the authenticity of the form can be verified by machine processing of the waybill.

US-PAT-NO: 5656799

DOCUMENT-IDENTIFIER: US 5656799 A

See image for Certificate of Correction

TITLE: Automated package shipping machine

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ramsden; Gary W.	Eau Claire	WI	N/A	N/A
Liles; Kenneth Wayne	San Antonio	TX	N/A	N/A

US-CL-CURRENT: 177/2, 177/25.14 , 177/25.15

ABSTRACT: A system for accepting and storing items for subsequent pickup by a commercial carrier includes a storage area which is defined by an outer housing, and a customer interface area that includes a weighing unit and a unit, such as a magnetic card reader, for accepting payment from a customer. The system may also include a control system that accepts address information from the customer through a key pad, and then instructs a printer to print an address label for the item. The system includes safeguards which prevent unauthorized access to the storage area, and will not provide a receipt to the customer until internal sensors verify deposit of the item. A manifest printer may also be provided for the benefit of the commercial carriers who service the system, to print out a summary of the transactions that pertain to each carrier. Alternatively, no storage area is provided. Instead, the item is given to a human attendant, such as a check out clerk of a grocery or hardware store and the like, with the appropriate mailing label for validation of receipt of the item by the attendant.

71 Claims, 28 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 27

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Detailed Description Text - DETX (96): After the shipping and package information is entered, system 700 then rates the package by computing the delivery date and cost for each delivery service at step 838. CRT 702 displays all the available shipping options including the pricing and delivery information. The displayed information includes the date of expected delivery, what day of the week that will be, and total shipping costs for each selection. The customer can then select at step 840 which shipping option best suits that customer's needs by comparing the delivery times and costs for that particular parcel or envelope 708.

US-PAT-NO:6233568

DOCUMENT-IDENTIFIER: US 6233568 B1

TITLE: System and method for automatically providing shipping/transportation fees

DATE-ISSUED: May 15, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kara; Salim G.	Markham	N/A	N/A	CA

US-CL-CURRENT: 705/410, 705/401

ABSTRACT: There is disclosed a system and method for dispensing postage or other authorization information electronically by using a portable processor containing a maximum amount of preauthorized postage which can be applied to any piece of mail or other item. A plurality of shipping service providers may utilize the portable processor to store and dispense credit value for authorization of various shipping services. Accordingly, a user is presented with information regarding various shipping service providers fees and/or services associated with particular shipping/delivery parameters desired by the user in order to make an informed choice as to a most preferable method of shipment.

47 Claims, 38 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 23

----- KWIC -----

Parent Case Text - PCTX (2): The present application is a continuation-in-part of pending application Ser. No. 08/796,275, entitled "SYSTEM AND METHOD FOR PROVIDING DISPOSABLE ELECTRONIC POSTAGE," filed Feb. 7, 1997, now U.S. Pat. No. 5,774,886 which in turn is a continuation application of application Ser. No. 08/639,847, entitled "SYSTEM AND METHOD FOR STORING POSTAGE IN A COMPUTER SYSTEM," filed Apr. 19, 1996, now U.S. Pat. No. 5,682,318, which is a continuation application of application Ser. No. 08/176,716, entitled "SYSTEM AND METHOD FOR AUTOMATICALLY PRINTING POSTAGE ON MAIL," filed Jan. 3, 1994, now U.S. Pat. No. 5,510,992, the disclosures of which are incorporated herein by reference.

Brief Summary Text - BSTX (4): Presently, it is common for individuals or businesses to have residing within their offices a postage meter rented from a commercial business. This arrangement is very convenient, since letters may be addressed, postage applied, and mailed directly from the office without requiring an employee to physically visit the U.S. Post Office and wait in line in order to apply postage to what is often a quite significant volume of outgoing mail, or to manually apply stamps to each piece of mail.

Brief Summary Text - BSTX (5): Quite naturally, postage meters were developed to relieve the manual application of stamps on mail and to automate the above process. Nevertheless, a postage meter residing within an office is not as convenient and efficient

as it may first seem to be. First, a postage meter may not be purchased, but must be rented. The rental fees alone are typically not insignificant. For a small business, this can be quite an expense to incur year after year. Second, a postage meter must be adjusted, serviced and replenished manually; e.g., each day the date must be adjusted manually, periodically the stamp pad must be re-inked, and when the amount of postage programmed within the postage meter has expired, the postage in the meter must be replenished. To be replenished, a postage meter must be manually unplugged, placed into a special case (the meter is of a significant weight), and an employee must visit a U.S. Post Office to have the meter reprogrammed with additional postage. Upon arrival at the U.S. Post Office, a teller must cut the seal, replenish the meter with a desired amount of postage, and reseal the meter before returning it to the employee. The meter must then be returned to the office and powered up.

Brief Summary Text - BSTX (6): Thus, in addition to the monthly rent, the servicing and replenishing of the meter requires the time and expense of at least one employee to take the meter to the U.S. Post Office to have it replenished. Of course, this procedure results in down-time wherein the postage meter is not available to the business for the application of postage to outgoing mail. In addition, because of the monthly rent and the size of these devices, it is generally not practical for businesses to have more than one postage meter to alleviate this down-time.

Brief Summary Text - BSTX (7): Another type of meter, offered at slightly more expense, works in the following manner: 1) a user sets up an account with the meter owner, 2) 7 to 10 days before a user requires more postage, the user deposits with the meter owner the amount of postage required, 3) the user then calls the owner (7 to 10 days later) and they issue instructions as to the manual pushing of a variety of buttons on the meter (programming) which will replenish the postage amount on the meter. Nonetheless, the meter must be taken to the Post Office every 6 months for servicing in order to detect any tampering.

Brief Summary Text - BSTX (9): An alternative to the above mentioned postage meters available to a business, especially a small business, is to forego the advantages of a postage meter and to buy sheets, or books, of stamps. Without a doubt, this is not a sufficient solution. Since a variety of denominations of stamps are generally required, applying two 29 cent. stamps to a letter requiring only 40 cent., will begin to add up over time. Additionally, it is difficult for a business to keep track of stamp inventories and stamps are subject to pilferage and degeneration from faulty handling. Moreover, increases in the postal rate (which seem to occur roughly every three years) and the requirement for variable amounts of postage for international mail, makes the purchase of stamps even more inefficient and uneconomical.

Brief Summary Text - BSTX (10): Because of different postage zones, different classes of mail, different postage required by international mail and the inefficiency of maintaining stamps within an office, it is important to have an automatic postage system, such as the aforementioned inefficient and relatively expensive postage meter.

Brief Summary Text - BSTX (14): Accordingly, there is a need in the art for a system and method that provides the automatic placement of postage or other proof of payment or obligation to make payment for services, i.e., conducting a credit transaction without deducting a value from a credit balance (credit transaction), associated with item shipping/delivery on mail and other items at locations other than a U.S. Post Office or other shipping service provider, while not requiring the use of a traditional postage meter. There is a further need in the art for such a system to provide for the placement of such proof of payment or obligation to make payment for a variety of different shipping/delivery services in order that a user may select a delivery service provider and/or particular service most advantageous to that user's needs and desires.

Detailed Description Text - DETX (3): The present invention will allow an individual to purchase a desired amount of postage or other value credit, preferably at an authorized agent of the U.S. Post Office, such postage or credit being stored within a portable postage dispensing device, which itself is a portable processor. The user may then invoke a host processor-based system to access and retrieve a portion of the stored amount of postage or credit via a program stored on the host processor-based system, such program hereinafter referred to as the "E-STAMP" (indicia creator) program. The E-STAMP program requests input on the weight of the item to be shipped, the addressee's address, etc. The E-STAMP program utilizes the information that was entered to calculate the amount of desired postage or shipping fees for an item to be shipped and prints a meter stamp or other authorization information, indicia, on an envelope, label, letter, waybill, manifest, bill of lading, etcetera, through a printer or special purpose label maker coupled to the host processor-based system.

Detailed Description Text - DETX (29): System 10 may be utilized at a customer site for permitting a user to retrieve postage, or other credit, stored within storage device 18, via the E-STAMP program, for subsequent printing as a postage indicia or other authorization information onto a piece of mail through printer 19, coupled to system 10. Likewise, system 10 may be utilized at a customer site for permitting a user to print information indicating an obligation to pay for selected services (credit transaction), rather than actually printing an indicia of payment, while storage device 18 securely retains transaction information therein for later auditing and/or assessment of monies due. Of course, as described above, system 10 may additionally or alternatively store transaction information, such as in disk drive 14, for later auditing and/or assessment of monies due. The utilization of the E-STAMP program by a customer will be further described below.

Detailed Description Text - DETX (78): In order to present the user with information from which to make an informed choice as to a particular shipping service provider by which to ship the piece of mail or other item, the E-STAMP program may calculate the fees associated with a plurality of the available shipping service providers. Accordingly, the user may select shipping service providers of interest (not shown) in order to allow the E-STAMP program to determine the fees for only those shipping service providers. Thereafter, the E-STAMP program may calculate and display fees associated with shipping the item via the selected shipping service providers according to the desired

shipping and/or delivery parameters, i.e., class, urgency, etc. Where a selected shipping service provider does not provide a desired shipping and/or delivery parameter, the E-STAMP program may indicate such and provide the fees for a service offered by that particular shipping service provider most near that desired by the user.

Detailed Description Text - DETX (82): Note that during the selection of the various parameters within display 80, the E-STAMP program may be implemented to update the postage amount displayed within meter display 806, 804 as the ongoing communications dialog between the portable processor and host processor-based system 10 is essentially a real-time basis.

Detailed Description Text - DETX (86): Using the E-STAMP system and method, users like lawyers, accountants, advertising agencies, etc., who bill their clients for postage will be able to keep track of postage expenses on a per-client basis.

Detailed Description Text - DETX (89): As discussed in further detail below, there are three different types or applications for the storage device 18 which relate to different levels of authority and use: master buttons (Authority Level 2) which are provided to a limited number of supervising postal authority personnel; agent buttons (Authority Level 1) which are provided to authorized postal agents who perform refill operations on used portable postage dispensing buttons and initialization operations on new portable postage dispensing buttons; and postage buttons (Authority Level 3) which allow the postal customer (user) to print an authorized amount of postage indicia using a separate host processor-based system controlled by the user. In actuality, the first two types of buttons are known as security devices which grant authority to serve credit and maintenance to the third type of button which is a postage dispensing device usable by postal clients.

Detailed Description Text - DETX (139): Although described with reference to a preferred embodiment utilizing a portable memory device, it shall be understood that the present invention may operate without such a device. For example, a preferred embodiment of the present invention may communicate with a centralized storage device such as shown and described in the above referenced application entitled "SYSTEM AND METHOD FOR REMOTE POSTAGE METERING", previously incorporated herein by reference. Likewise, the postage credit may be stored within the host system such as shown and described in U.S. Pat. No. 5,682,318, entitled "SYSTEM AND METHOD FOR STORING POSTAGE IN A COMPUTER SYSTEM", incorporated herein by reference.

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INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Goodwin, Johnathan David	Laguna Niguel	CA	US	
Winslow, Richard B.	Topanga	CA	US	
Cowles, Daniel K.	Irvine	CA	US	

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ABSTRACT: A web-enabled VBI printing system including one or more cryptographic modules and a central database. The cryptographic modules are capable of implementing a variety of required security standards. A client system is integrated with HTML and provides a user friendly GUI for facilitating the interface of the user to the system. The client system includes wizards that help the user step-by-step with processes of installation, registration, and printing. In one aspect, the invention describes an web-based system for printing a value bearing item (VBI) that includes a client system for interfacing with a user comprising; a GUI for installing software for printing the VBI; a GUI for registering the user in the system; and a GUI for managing the printing of the VBI; and a server system capable of communicating with the client system over a computer network for authorizing the client system to print the VBI.

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Summary of Invention Paragraph - BSTX (4): [0003] A significant percentage of the United States Postal Service (USPS) revenue is from metered postage. Metered postage is generated by utilizing postage meters that print a special mark, also known as postal indicia, on mail pieces. Generally, printing postage and any VBI can be carried out by using mechanical meters or computer-based systems.

Summary of Invention Paragraph - BSTX (5): [0004] With respect to computer-based postage processing systems, the USPS under the Information-Based Indicia Program (IBIP) has published specifications for IBIP postage meters that identify a special purpose hardware device, known as a Postal Security Device (PSD) that is generally located at a user's site. The PSD, in conjunction with the user's personal computer and printer, functions as the IBIP postage meter. The USPS has published a number of documents describing the PSD specifications, the indicia specifications and other related and relevant information. There are also security standards for printing other types of VBI, such as coupons, tickets, gift certificates, currency, money orders, voucher and the like.

Summary of Invention Paragraph - BSTX (7): [0006] The software-based system should be able to handle secure communications between users and the database. The system should also be user friendly and be able to provide the user with a step-by-step process

for installing the client software, registering with the system, printing the postage value, maintaining and monitoring the user account information, and the like.

Detail Description Paragraph - DETX (11): [0061] FIG. 2 shows a simplified system block diagram of a typical Internet client/server environment used by an on-line postage system in one embodiment of the present invention. PCs 220a-220n used by the postage purchasers are connected to the Internet 221 through the communication links 233a-233n. Each PC has access to one or more printers 235. Optionally, as is well understood in the art, a local network 234 may serve as the connection between some of the PCs, such as the PC 220a and the Internet 221 or other connections. Servers 222a-222m are also connected to the Internet 221 through respective communication links. Servers 222a-222m include information and databases accessible by PCs 220a-220n. The on-line VBI system of the present invention resides on one or more of Servers 222a-222m.

Detail Description Paragraph - DETX (13): [0063] In one embodiment, a customer, preferably licensed by the USPS and registered with an IBIP vendor (such as Stamps.com), sends a request for authorization to print a desired amount of VBI, such as postage. The server system verifies that the user's account holds sufficient funds to cover the requested amount of postage, and if so, grants the request. The server then sends authorization to the client system. The client system then sends image information for printing of a postal indicium for the granted amount to a printer so that the postal indicium is printed on an envelope or label.

Detail Description Paragraph - DETX (15): [0065] In one embodiment, the information processing components of the on-line postage system include a client system, a postage server system located in a highly secure facility, a USPS system and the Internet as the communication medium among those systems. The information processing equipment communicates over a secured communication line.

Detail Description Paragraph - DETX (30): [0080] Offline database 409 manages the VBI (e.g., postal) data except meter information, postal transactions data, financial transactions data (e.g., credit card purchases, free postage issued, bill credits, and bill debits), customer marketing information, commerce product information, meter license information, meter resets, meter history, and meter movement information. Consolidation Server 413 acts as a repository for data, centralizing data for easy transportation outside the vault 400. The Consolidation Server hosts both file and database services, allowing both dumps of activity logs and reports as well as a consolidation point for all database data. The Offline Reporting Engine MineShare Server 415 performs extraction transformation from the holding database that received transaction data from the Consolidated Database (Commerce database 406, Membership database 408, and Postal Database 407). Also, the Offline Reporting Engine MineShare Server handles some administrative tasks. Transaction data in the holding database contains the transaction information about meter licensing information, meter reset information, postage purchase transactions, and credit card transactions. After performing extraction transformation, business logic data are stored on Offline Database

409. Transaction reports are generated using the data on the Offline Database. Transaction reports contain marketing and business information.

Detail Description Paragraph - DETX (32): [0082] The E-commerce DBMS 406 manages access to the vendor specific Payment, Credit Card, and Email Databases. A Membership DBMS manages access to the LDAP membership directory database 408 that hosts specific customer information and customer membership data. A Postal DBMS manages access to the Postal Database 407 where USPS specific data such as meter and licensing information are stored. A Postal Server 401 provides secure services to the Client, including client authentication, postage purchase, and indicia generation. The Postal Server requires cryptographic modules to perform all functions that involve client authentication, postage purchase, and indicia generation.

Detail Description Paragraph - DETX (33): [0083] Postal Transaction Server 403 provides business logic for postal functions such as device authorization and postage purchase/register manipulation. The Postal Transaction Server requires the cryptographic modules to perform all functions. There are four Client Support Servers. Address Matching Server (AMS) 417 verifies the correct address specified by a user. When the user enters a delivery address or a return address using the client software, the user does not need the address matching database on the user's local machine to verify the accuracy of the address. The Client software connects to the vendor's server and uses the central address database obtained from the USPS to verify the accuracy of the address.

Detail Description Paragraph - DETX (45): [0095] In one embodiment of the present invention, Postal Server 401 is a standalone server process that provides secure connections to both the clients and the server administration utilities, providing both client authentication and connection management functionality to the system. Postal Server 401 also houses postal-specific services that require high levels of security, such as purchasing postage or printing indicia. Postal Server 401 is comprised of at least one server, and the number of servers increases when more clients need to be authenticated, are purchasing postage or are printing postage indicia.

Detail Description Paragraph - DETX (71): [0121] Service Screen #6, in block 745, provides several types of information all related to the user's postage usage habits, for use both by the provider and the USPS. In this screen, as depicted in FIG. 9G, the user specifies their mail volume using a spinner box and the letter category is split into window and standard envelopes. In addition, a question is asked with yes or no radio button response options (Do you currently lease or rent a traditional postage meter?). The "Next>" button is preferably not enabled until the user has selected a value in each box. The mail volume box is blank by default. Each of the four percentage boxes preferably has a 0 in it. When the user hits the "Next>" button, verify that the percentage boxes add up to 100%. When storing the percentages for use in the USPS meter license application, the first two percentages (letters--standard envelopes and letters-windowed/pre printed) are added together to create the value for the USPS "letters" category. The other two percentages map equally to their USPS counterparts.

Detail Description Paragraph - DETX (72): [0122] Service Screen #7 (block 746) allows the user to select a service plan from the provider. The following information is preferably downloaded at the beginning of the registration wizard: Service Plan names, a URL to a page on the provider's web site that describes the service plans in detail, and text files describing each service plan. FIG. 9H depicts an exemplary interface for this screen. The drop down box preferably displays all available plans at the time. No plans are selected by default, and the prompt "Select One" appears. At this time, a text file that briefly describes all of the plans currently available is displayed in a scrollable text window below. Once the user selects a plan, the text file below is changed to display a text file that describes only that plan. If a preferred service plan is defined, this plan is the first one to appear on the drop down list (still none of the plans selected by default). A URL link takes the user to provider's web site for details on the plans. The "Next>" button is disabled until the user selects a plan.

Detail Description Paragraph - DETX (73): [0123] As illustrated in block 747, Service Screen #8 displays the service contract for the service plan that the user selected on the previous screen. This contract is a text file, which is downloaded at the beginning of the registration wizard. As shown in FIG. 9I, neither of the two radio buttons are selected by default, and the "Next>" button is disabled until the user selects one of the choices. If the user selects "I Accept", the wizard will continue. If the user selects "I do NOT accept", a message box should appear as described below. This wizard screen should still remain open in the background behind this dialog box. If the user selects "I do NOT Accept" on Screen #8 of FIG. 9I, a dialog box, shown in FIG. 9J, appears indicating that the user must accept the terms in order to sign up with the provider. If the user selects "Go Back", this dialog Box closes, and the user is brought back to screen #8 of the wizard. If the user selects "Cancel", the Getting Started is canceled.

Detail Description Paragraph - DETX (77): [0127] As described above, the Registration Wizard is capable of gathering all of the information that is required by the USPS for a Meter License Application. The information that is extracted in this wizard is used to generate a USPS 3601A form. FIG. 10A is an exemplary flow of the Registration wizard component of the Getting Started wizard. When this portion of the Getting Started wizard has begun, the Follow the Yellow Brick Road text is changed to "Apply for a Postage Meter". In block 1010, License Screen #1 serves the purpose of letting the user know that he/she is entering the portion of the wizard where the meter license is filled out. The follow the Yellow Brick Road text will change to meter License application., as shown in FIG. 10B.

Detail Description Paragraph - DETX (92): [0142] In block 1123, if the user selects "none of the above match what I see" on screen #7, Printer Screen #8, shown in FIG. 11J, appears to ask the user which option the user would like to pursue at this time. Three radio buttons provide the options. If the user selects the Try printing another sample option, another shape design is sent to the printer, so that the comparison process can be undertaken again. Selecting the Try printing another sample to a different printer option links the user back to screen #1 of the Print Setup, allowing the user to select

another printer and start the process again. Selecting the Neither of these solutions work option indicates that the system cannot determine a feed offset and therefore cannot print envelopes using the user's printer. When "Next>" is selected, the message on screen #9 conveys this to the user. None of the radio buttons is selected by default, and the "Next>" button is not available until the user selects one of the options.

Detail Description Paragraph - DETX (97): [0147] A Print Postage dialog box is the main interface from which a user defines the postage to be printed. An exemplary interface for this dialog box is illustrated in FIG. 13J. Return Address items are grouped within their own frame. The Return Address box is editable, allowing users to customize the return address by simply typing into the box. Delivery Address items are grouped within their own frame. The Delivery Address box is editable, allowing users to insert a delivery address by simply typing into the box. If a user adds an address which is not in the address book, the user is prompted whether or not the address is added. In the event that only a single recipient is chosen, the address is displayed in the same format that it is in the return address window. If multiple recipients are selected, the view is that of a list box displaying the names of all of the recipients that have been chosen. If multiple recipients are selected and different recipients require mailing to different zones, then the cost of postage is displayed next to that recipient.

Detail Description Paragraph - DETX (99): [0149] The Enter Weight fields allow users to type in values or select them using spinner controls. If the user has set up a digital scale, clicking on the scale button automatically pulls the value from the scale and display the value in these fields. After the initial use, the fields remember the last value. The "Select a Service" control is a list box, which shows the various services that are available and also displays the cost of each type of service for the mail piece that has been defined. The prices update as the user inputs information into the Enter Weight fields. If the user is typing a value, the display immediately updates as the user types. If zone based postage is used, and if multiple users are selected, the range of costs is displayed. Once a user has selected a mail service, a graphic of a check mark should appear immediately to the left of the item as shown. None of the items are selected by default. Available Postage display displays the available postage amount. Total Mailing Cost displays the cost of the total mailing when multiple recipients are selected.

Detail Description Paragraph - DETX (101): [0151] In the exemplary screen of FIG. 13K, when multiple recipients are selected, they are displayed as a list with only the recipient name showing. When multiple recipients are selected which span multiple zones, the price of the mail piece going to an individual recipient is displayed next to the recipient's name. This display only appears after a weight value that warrants zone based postage has been entered. The Select a Service list box shows a range of prices for the mailings. The Cost of Mailing display appears when multiple recipients are selected, and provides the user with a total cost for the mailing.

Detail Description Paragraph - DETX (121): [0171] A change of Address wizard is designed to help a user through the process of changing either a physical or mailing address, and the meter license ramifications that may result. An exemplary process flow

of the Change of Address wizard is shown in FIG. 19A. In block 1901, the Change of Address Screen #1 serves the purpose of welcoming the user to the wizard using the text as shown in FIG. 19B. Selecting "Next>" advances the user to the next screen of the wizard. In block 1902, the Change of Address Screen #2 allows the user to enter a new mailing address and/or physical address. As shown in FIG. 19C, the controls used are the same as are used in the Addresses screen of the Getting Started wizard. The only difference is in the introductory text. The client checks for a PO Box in the physical address fields. If a PO Box is provided, the error message indicates that a PO Box is not acceptable. These fields are preferably pre populated by default. In blocks 1903 and 1904, addresses are checked and in block 1905, the Change of Address Screen #23, shown in FIG. 19D, appears. This screen preferably serves the same purpose as the Submit screen of the Registration Wizard, and preferably uses the same controls. One difference is that in this case, the only information that is populated is the address information that is provided in screen #2.

Detail Description Paragraph - DETX (125): [0175] In one embodiment, the system allows the user to change the service plan in which the customer is participating. This is accomplished through several screens which have many of the attributes of the Service Plan screens within the Getting Started wizard. This functionality is accessed when the user selects "Change Service Plan" from the Accounts screen. Once the user selects "Change Service Plan" from the Accounts screen, the Change Plan dialog box (shown in FIG. 21A) appears which has controls that are similar to those found on Service Screen #7 in the Getting Started wizard with one addition. Specifically, a line of text is added at the top of the screen that displays the name of the Service Plan that the user is currently signed up for. Once the user has selected "Ok" in the Change Plan dialog box, the Change Plan Contract dialog box, shown in FIG. 21B, appears. This dialog box preferably uses the same controls as screen #8 in the Getting Started wizard (described above), and displays the contract for the new service plan that the user has selected.

Detail Description Paragraph - DETX (130): [0180] FIG. 23 is an exemplary interface for a Withdraw Meter dialog box. Reason for withdrawal combo box allows the user to select a reason why he/she is withdrawing the meter. The user can type in their own response or select from any of the following standard responses; too expensive, difficulty connecting, too much lost postage due to printing mistake, no support for windowed or pre-addressed envelope, incompatibility with other software, requires printing of address and 'stamp' together, no longer have significant mail volume, poor customer support, and the like. Future Products used combo box helps better understand why customers are terminating the provider's service. Specifically, this control allows the user to indicate what postal solution he/she will use in the future. The user can type in a response or select from the following: regular stamps, postage meter, or alternative Internet Postage product. A prompt appears in the combo box that reads "<type in or select one>", if the user chooses to type in a response. Address fields define where the refund check will go. These fields are pre-populated with the user's mailing address, but the user can make any desired changes to the address. Once all of these fields are filled in, selecting the OK button submits a request to withdraw a meter to the server. The server processes the appropriate withdrawal forms to the USPS on the user's behalf.

Detail Description Paragraph - DETX (159): [0209] If the user insures the item for \$50 or more, the client checks to see if the mail piece was parcel Post. If yes, the Return Receipt checkbox is enabled. If the user insures the item for less than \$50, the Delivery Confirmation checkbox and the Return Receipt checkbox are disabled. If the user clicks OK, the client checks to see which services are selected. If Certified Mail is selected, the appropriate amount is added to the total. If Return receipt Mail is selected, the appropriate amount is added to the total. If Delivery Confirmation is selected, the appropriate amount is added to the total. If Registered mail is selected, the client software calculates the cost of the special service based on the USPS rate table for Registered Mail.

Detail Description Paragraph - DETX (165): [0215] FIGS. 31A-31G depict exemplary interfaces for address override. After a user logs on to the client system and clicks on "Print Postage" tab within Welcome screen, the exemplary interface of FIG. 31A is shown. The user then enters an address, for example, 123 Address Override St. Los Angeles, Calif. 90015. Suppose that this entered address only matches a real address with respect to the last line (city, state & zip code). The user then selects a mail class (e.g., First-Class Mail radio button) and clicks "Print Sample . . ." or "Print Postage . . .". As a result, the dialog box shown in FIG. 31B is shown providing to the user the options of accepting the overridden address ("Accept"), canceling out of the dialog ("Cancel"), or editing the result for another try at cleansing the address ("Edit"), as shown by the available buttons shown in the dialog box of FIG. 31B. The "Edit" button takes the user back to the interface screen of FIG. 31A. An option of saving the address changes to the address book is also provided in interface of FIG. 31B.

Claims Text - CLTX (24): 23. An interactive web-enabled postage printing system comprising: a web-enabled installation wizard including a graphical user interface (GUI) for downloading and installing software for postage printing from a server connected to a computer network; a web-enabled registration wizard including a GUI for facilitating the registration of a user with the system; and a web-enabled printing wizard including a GUI for facilitating printing of a postage indicium.